

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

FACT SHEET

GENERAL PERMIT NCG210000
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE STORMWATER

Permit No. NCG210000

Date: April 13, 2018

1. TYPES OF DISCHARGES COVERED

a. Industrial Activities Covered by this General Permit

Coverage under this general permit is applicable to all owners or operators of stormwater point source discharges associated with establishments primarily engaged in activities classified as **Lumber and Wood Products, Except Furniture**, Standard Industrial Classification Major Group 24 (SIC 24). Coverage is also applicable to point source discharges **from like industrial activities** deemed by the Division of Energy, Mineral and Land Resources (DEMLR) to be similar to these operations in the process, or the discharges, or the exposure of raw materials, intermediate products, by-products, products, or waste products.

Except when DWQ deems activities, discharges, or exposure to be similar as described above, the following activities are **excluded from coverage** under this General Permit: establishments primarily engaged in **Logging – SIC 2411**; manufacturing **Wood Kitchen Cabinets – SIC 2434**; and **Wood Preserving – SIC 2491**.

b. Types of Industrial Operations Covered

The industrial activities covered under this General Permit include facilities such as sawmills and planing mills, hardwood dimension and flooring mills, shingle mills, cooperage stock mills, millwork operations, veneer mills, and plywood mills engaged in producing lumber and wood basic materials; and establishments engaged in manufacturing finished articles made entirely or mainly of wood or related material, such as wood containers, wood pallets, mobile homes, prefabricated wood buildings, and reconstituted wood products.

The logging industry, SIC 2411, is exempt from permitting as set forth in 40 CFR 122.27 and is not eligible for coverage under this permit.

When viewed as a class, many of the facilities in this General Permit typically conduct their activities outdoors. The activities at these facilities that can contribute to stormwater pollution include storage of raw materials, intermediate products, final products, by-products, waste products, or chemicals outside; loading and unloading chemicals or hazardous substances, the use of un-housed manufacturing and heavy

equipment; generation of significant amounts of dust or particulate; and raw material and chemical spillage or leaks.

Pollutant parameters of particular concern in these industries can be broadly categorized as organics, oils, suspended and dissolved solids, metals, and pH.

c. Characteristics of Discharged Stormwater

DEQ Regional Office staff inspections have identified a pattern of problems at facilities in the SIC 24 category, particularly at sites with large sawdust piles or mulch piles. Documented cases of oxygen-consuming pollutants, suspended solids content, low pH, metals toxicity, and dissolved solids have been associated with surface water quality standards violationsⁱ. In addition, historical TSS and Biochemical Oxygen Demand (BOD₅) data reported by wood chip mills under General Permit NCG220000 suggest that elevated levels of pollutants in the stormwater discharge can be expected from facilities that have wood chipping operations. Chip mills have been covered under this general permit since 2011.

The Division continues to consider whether leachate from accumulations of small-sized woody materials, such as mulch piles or sawdust piles, should be permitted as stormwater or wastewater. If it is considered wastewater, the leachate discharge may be more appropriately covered under General Permit NCG240000 Compost Facilities, which has a wastewater component.

d. Geographic Area(s) Covered by this General Permit

Discharges covered by this general permit are located at any place within the political boundary of the State of North Carolina. Discharges located on the Cherokee Indian Tribal Reservation are subject to permitting by the U.S. Environmental Protection Agency and are not covered by this general permit.

e. Receiving Waters

Receiving waters include all surface waters of North Carolina or municipal separate storm sewer systems conveying stormwater to surface waters.

2. PROPOSED DISCHARGE CONTROLS AND LIMITATIONS

a. Stormwater Pollution Prevention Plan

As in previous versions of this General Permit, all facilities covered under the General Permit must develop and implement a Stormwater Pollution Prevention Plan (SPPP or Plan). DEMLR continues to believe that effective control of the pollutant content in

industrial stormwater discharges can only be achieved when site management implements a site-specific, written, management plan serving that objective.

b. Stormwater Discharge Analytical Monitoring

As in the 2008, 2011, and 2013 versions of this General Permit, a subset of permittees must: perform analytical monitoring on stormwater discharges, respond to exceedances of numerical benchmark values, keep records of the monitoring results and permittee's response actions, and report the monitoring results to DEMLR. Analytical monitoring of all site stormwater discharges is required for permittees with accumulations of reduced-size woody materials, such as sawdust, wood chips, bark, or mulch, that remain exposed for more than seven days. The permit text provides limiting conditions that will allow DEMLR to excuse the monitoring requirement on a case-by-case basis.

c. Stormwater Discharges from Vehicle Maintenance Areas

As in previous versions of this General Permit, a subset of permittees must perform analytical monitoring on stormwater discharges from vehicle maintenance areas (VMA). This renewal permit maintains benchmark concentrations for stormwater discharges from VMA to provide facilities with a tool with which to assess the effectiveness of best management practices (BMPs).

d. Visual Monitoring of Stormwater Discharges

As in previous versions of this General Permit, the permittee must perform qualitative monitoring (visual monitoring) at all stormwater outfalls. All permittees are subject to this permit requirement.

e. Numerical Benchmarks and Tiered Responses

As in previous versions of this General Permit, the permittee must respond to benchmark exceedances with increased monitoring, increased management actions, increased record keeping, and/or the installation of stormwater BMPs in a tiered program. Exceedance of a numerical benchmark is not considered a violation of the permit conditions, although failure to respond as per the Tiered response structure would be. In that context, the benchmark value is not a numerical 'permit limit', but rather could be viewed as a management action level value. Four (4) benchmark exceedances require the permittee to notify the DEMLR Regional Office, and may prompt additional requirements under the provisions of Tier Three. This general permit first incorporated stormwater numerical benchmarks and tiered responses in the 2008 renewal.

3. MONITORING AND REPORTING REQUIREMENTS

This permit specifies monitoring and reporting requirements for both quantitative and qualitative assessment of the stormwater discharges and operational inspections of the entire facility. For those subsets of permittees subject to analytical monitoring requirements (facilities with accumulations of sawdust, chips, bark, or mulch, etc.; and facilities with qualifying VMA discharges), the specific pollutant parameters and the frequency of the sampling are based on the potential for contamination of the stormwater runoff from the industrial activities, and on the types of petroleum-based materials used, stored, and transferred at VMA's of these sites. Qualitative parameters are consistent with other general permits in the NPDES stormwater program.

The draft renewal permit proposes specific monitoring requirements for the following parameters for stormwater discharges from vehicle/equipment maintenance areas: **Total Rainfall, Non-polar Oil and Grease ("Non-polar O&G")** [by EPA Method 1664 (SGT-HEM)], and **Total Suspended Solids (TSS)**, based on the amount of average oil usage (more than 55 gallons of new motor oil and/or hydraulic oil per month when averaged over the calendar year). The rationale for retaining these parameters in the renewal permit is their utility as stormwater pollution indicators for VMA's.

The draft renewal permit retains the term "**measurable storm event**." The measurable storm event is an event that results in an actual discharge, rather than an event with a rainfall measuring 0.1 inches or more. To qualify as a measurable storm event, the previous storm event must have been at least 72 hours prior. In 2011, the NCG140000 Ready-Mixed Concrete General Permit was the first general permit to implement this new storm event definition, and other general permits have since followed suit. The proposed draft also maintains the requirement to separate semi-annual sampling events by a minimum of 60 days.

As before, the renewal permit specifies qualitative (visual) monitoring of each stormwater outfall for the purpose of evaluating the effectiveness of the Stormwater Pollution Prevention Plan (SPPP) and assessing new sources of stormwater pollution. For the subset of facilities where analytical monitoring is not triggered, those facilities will only be required to perform semi-annual qualitative monitoring under the proposed renewal permit. Qualitative monitoring parameters include color, odor, clarity, floating and suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. Qualitative monitoring should also be performed during any analytic sampling event, if applicable).

The draft permit maintains specific direction to the permittee about how to respond to qualitative monitoring. If qualitative monitoring indicates that existing stormwater BMPs are ineffective, or that significant stormwater contamination is present, the permittee must investigate potential causes, evaluate the feasibility of corrective actions, and implement those corrective actions within 60 days. A written record of the permittee's investigation,

evaluation, and response actions must be kept in the SPPP. The **Qualitative Monitoring Response** establishes actions for when a permittee repeatedly fails to respond effectively to correct problems, or if the discharge causes or contributes to a water quality standard violation.

4. COMPLIANCE SCHEDULE

The compliance schedule in Part III, Section A still advises that the permittee comply with Limitations and Controls specified for stormwater discharges in accordance with the following schedule:

Existing Facilities already operating but applying for permit coverage for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented within 12 months of the effective date of the **Certificate of Coverage** and updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, Paragraph 2(b) of this general permit, shall be accomplished within 12 months of the effective date of the issuance of the **Certificate of Coverage**.

New Facilities applying for coverage for the first time: The Stormwater Pollution Prevention Plan shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part II, Section A, Paragraph 2(b) of this general permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

Existing facilities previously permitted and applying for renewal under this General Permit: All requirements, conditions, limitations, and controls contained in this permit (except new SPPP elements in this permit renewal) shall become effective immediately upon issuance of the **Certificate of Coverage**. New elements of the Stormwater Pollution Prevention Plan for this permit renewal shall be developed and implemented within 6 months of the effective date of this general permit and updated thereafter on an annual basis. Secondary containment, as specified in Part III, Paragraph 2(b) of this general permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

5. SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

This draft general permit does not propose any special conditions that will have a significant impact on the discharge. However, the proposed draft does add Special Conditions in Part II, Section D. that address electronic reporting requirements mandated by the federal NPDES Electronic Reporting Rule. When the agency's electronic reporting system is able to accept NPDES stormwater permit monitoring data, the permittee must report discharge monitoring data electronically using NC Division of Water Resources' Electronic Discharge Monitoring Report (eDMR) internet application. NC DEMLR will notify permittees when eDMR is ready to accept data.

6. BASIS FOR CONTROLS AND LIMITATIONS

a. Stormwater Discharges

The conditions of this general permit have been designed using best professional judgment to achieve water quality protection through compliance with the technology-based standards of the Clean Water Act (Best Available Technology [BAT] and Best Conventional Pollutant Control Technology [BCT]). Where the Director determines that a water quality violation is occurring and water quality-based controls or effluent limitations are required to protect the receiving waters, coverage under the general permit shall be terminated and an individual permit will be required. Based on a consideration of the appropriate factors for BAT and BCT requirements, and a consideration of the factors discussed below in this fact sheet for controlling pollutants in stormwater discharges associated with the activities as described in Item 1 (Types of Discharge Covered), this permit retains a set of requirements for developing and implementing stormwater pollution prevention plans, and specific requirements for monitoring and reporting on stormwater discharges.

The permit conditions reflect the Environmental Protection Agency's (EPA) and North Carolina's pollution prevention approach to stormwater permitting. The quality of the stormwater discharge associated with an industrial activity will depend on the availability of pollutant sources. This renewal permit still reflects the Division's position that implementation of Best Management Practices (BMPs) and traditional stormwater management practices which control the source of pollutants meets the definition of BAT and BCT. The permit conditions are not numeric effluent limitations, but rather are designed to be flexible requirements for developing and implementing site specific plans to minimize and control pollutants in the stormwater discharges associated with the industrial activity.

Title 40 Code of Federal Regulations (CFR) Part 122.44(k)(2) authorizes the use of BMPs in lieu of numeric effluent limitations in NPDES permits when the agency finds numeric effluent limitations to be infeasible. The agency may also impose BMP requirements which are "reasonably necessary" to carry out the purposes of the Act under the authority of 40 CFR 122.44(k)(3). The conditions of the renewal permit are retained under the authority of both of these regulatory provisions. The pollution prevention requirements (BMP requirements) in this permit operate as limitations on effluent discharges that reflect the application of BAT/BCT. The basis is that the BMPs identified require the use of source control technologies which, in the context of these general permits, are the best available of the technologies economically achievable (or the equivalent BCT finding).

All facilities covered by this general permit must prepare, retain, implement, and (at a minimum of annually) update a Stormwater Pollution Prevention Plan (SPPP). The term "pollution prevention" distinguishes this source reduction approach from traditional pollution control measures that typically rely on end-of-pipe treatment to remove pollutants in the discharges. The plan requirements are based primarily on traditional stormwater management, pollution prevention and BMP concepts, providing a flexible basis for developing site-specific measures to minimize and control the amounts of pollutants that would otherwise contaminate the stormwater runoff.

The pollution prevention approach adopted in the SPPP in this renewal permit still focuses on two major objectives: 1) to identify sources of pollution potentially affecting the quality of stormwater discharges associated with industrial activity from the facility; and 2) to describe and ensure that practices are implemented to minimize and control pollutants in stormwater discharges associated with industrial activity from the facility and to ensure compliance with the terms and conditions of the permit.

The Division believes that it is not appropriate at this time to require a single set of effluent limitations or a single design or operational standard for all facilities which discharge stormwater associated with industrial activity. This permit instead establishes a framework for the development and implementation of a site-specific SPPP. This framework provides the necessary flexibility to address the variable risk for pollutants in stormwater discharges associated with the industrial activities that are addressed by this permit, while ensuring procedures to prevent stormwater pollution at a given facility are appropriate given the processes employed, engineering aspects, functions, costs of controls, location, and age of facility (as discussed in 40 CFR 125.3). This approach allows flexibility to establish controls which can appropriately address different sources of pollutants at different facilities.

There has been no significant change to this rationale since the previous General Permit NCG210000.

b. Stormwater Benchmarks

The standard **total suspended solids (TSS) benchmark** of **100 mg/l** (*applicable to all stormwater discharges, including VMA*) is based on the median concentration derived from the National Urban Runoff Program (NURP) study in 1983 and serves as a benchmark in most other industrial stormwater permits with TSS monitoring. The lower TSS benchmark for ORW, HQW, trout, and primary nursery area (PNA) waters of **50 mg/l** reflects half that standard value and was set to flag potential problems in discharges to waters with much lower water quality standards for TSS concentrations (20 mg/l for HQW and ORW; 10 mg/l for trout and PNA waters).

The benchmark for **Chemical Oxygen Demand (COD)** (*not applicable to VMA discharges*) is set at **120 mg/l**, consistent with all other stormwater General Permits employing COD. COD is one measure of the organic pollutants in stormwater, and is generally found at levels three to six times the BOD₅ levels in domestic wastewaters. NC DEQ has selected a multiplier of 4 in comparison to the standard BOD₅ benchmark of 30 mg/L. DEQ's standard BOD₅ benchmark is based on the Secondary Treatment Regulations specified in the Code of Federal Regulations, 40 CFR 133. The regulation defines the minimum level of effluent quality attainable by secondary wastewater treatment as 30 mg/L. There has been no change to this COD benchmark value since the 2008 permit.

The “**Non-polar O&G**” [by EPA Method 1664 (SGT-HEM)] benchmark of **15.0 mg/l** (*applicable to VMA discharges*) is consistent with other States’ benchmarks and/or limits for total petroleum hydrocarbons (TPH) and reflects a value normally only associated with significant oil contamination. Specifying the EPA Method 1664 with the silica gel treatment step (SGT-HEM) in the permit ensures a cost-effective way to estimate TPH (as opposed to gas chromatographic analysis).

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

There are no requested variances or alternatives to required standards. Facilities requesting variances to required standards will not be covered under this General Permit but will instead be required to seek coverage under an individual permit.

8. THE ADMINISTRATIVE RECORD

The administrative record, including application, draft permits, fact sheet, public notice, comments received, and additional information is available by writing to:

Stormwater Program
Division of Energy, Mineral, and Land Resources (DEMLR)
1612 Mail Service Center
Raleigh, North Carolina 27699-1612

The above documents are available for review and copying at:

Archdale Building, 9th Floor
DEMLR Stormwater Program
512 N. Salisbury Street
Raleigh, North Carolina

between the hours of 8:00 AM and 5:00 PM Monday through Friday. Copies will be provided at a charge of 10 cents per page.

9. STATE CONTACT

Additional information about the draft permit may be obtained at the above address between the hours of 8:00 AM and 5:00 PM Monday through Friday by contacting: **Julie Ventaloro** at (919) 807-6370.

10. SCHEDULE OF PERMIT ISSUANCE

Draft Permit Public Notice – **Statewide Notice to publish June 15, 2018;**

**Draft available on-line by [June 15, 2018](#);
Comment Period Ends [July 16, 2018](#)**

Permit Scheduled to Issue – **No later than [July 31, 2018](#);
Effective [August 1, 2018](#)**

11. PROCEDURE FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Division of Energy, Mineral, and Land Resources proposes to issue an NPDES General Permit for the above described stormwater discharges subject to the outlined effluent limitations, management practices, and special conditions. These determinations are open to comment from the public.

Interested persons are invited to submit written comments on the permit applications or on the Division of Energy, Mineral, and Land Resources' proposed determinations to the following address:

Stormwater Program
Division of Energy, Mineral, and Land Resources
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
Attn: **Julie Ventaloro**

All comments received within thirty (30) days following the date of public notice are considered in the formulation of final determinations.

b. Public Meeting

The Director of the Division of Energy, Mineral, and Land Resources may hold a public meeting if there is a significant degree of public interest in a proposed permit or group of permits. Public notice of such a meeting will be circulated in newspapers in the geographical area of the discharge and to those on the Division of Energy, Mineral, and Land Resources' mailing list at least thirty (30) days prior to the meeting.

c. Appeal Hearing

An applicant whose permit is denied, or is granted subject to conditions he deems unacceptable, shall have the right to a hearing before the Commission upon making written demand to the Office of Administrative Hearing (OAH) within 30 days following issuance or denial of the permit.

d. Issuance of a Permit When no Hearing is Held

If no public meeting or appeal hearing is held, after review of the comments received, and if the Division of Energy, Mineral, and Land Resources determinations are substantially unchanged, the permit will be issued and become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources.

If a public meeting or appeal hearing is not held, but there have been substantial changes, public notice of the Division of Energy, Mineral, and Land Resources revised determinations will be made. Following a 30-day comment period, the permit will be issued and will become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources unless a public meeting or appeal hearing is granted.

ⁱ Scott Sawmill Case (Yadkin County, WSR0). Sawdust pile leachate resulted in impacts to stream and 2/5/2007 NOV with recommendation for enforcement action for Removal of Use and Oils, deleterious substances, colored or other wastes.

Mulch Masters facility under NCG210366 (Wake County, RRO): 5/14/2004 DWQ samples recorded BOD₅ levels of 3,000 mg/l in mulch pile leachate and 290 mg/l in-stream about 100 yards from the discharge from this site. Facility has since relocated to Warren County.

Carolina Bark facility under NCG210360 (Northampton Co., RRO): 10/2003 DWQ sample recorded pH of 3.2. Further sampling in March 2008 suggested aluminum toxicity. Significant removal of use impacts in the adjoining receiving water.